

BeagleBone Black expansion header P8

Pin	CPU Pin	Pin Name	Pinmux register offset	mode 6	mode 7	GPIO Bank	GPIO Pin	Probotix PBX-BB	Probotix PBX-BB 5.x	Kernel GPIO Number	hal_pr_u_generic GPIO pin number	hal_bb_gpio pin number	Proposed GPIO pin number	
1	GND													
2	GND													
3	R9	GPMC_AD6	0x818		*gpio1_6	emmc	1	6		38	70	103	803	
4	T9	GPMC_AD7	0x81C		*gpio1_7	emmc	1	7		39	71	104	804	
5	R8	GPMC_AD2	0x808		*gpio1_2	emmc	1	2		34	66	105	805	
6	T8	GPMC_AD3	0x80C		*gpio1_3	emmc	1	3		35	67	106	806	
7	R7	GPMC_ADVn_ALE	0x890		*gpio2_2		2	2		66	98	107	807	
8	T7	GPMC_OEn_REn	0x894		*gpio2_3		2	3	YLIMIT	67	99	108	808	
9	T6	GPMC_BEn0_CLE	0x89C		*gpio2_5		2	5		69	101	109	809	
10	U6	GPMC_WEn	0x898		*gpio2_4		2	4		68	100	110	810	
11	R12	GPMC_AD13	0x834	pr1_pr_u0_pr_u_r30_15	*gpio1_13		1	13	YENA / RELAY2 / BSTP / ASTP	45	77	111	811	
12	T12	GPMC_AD12	0x830	pr1_pr_u0_pr_u_r30_14	*gpio1_12		1	12	XENA / RELAY3 / BSTP / ADIR	44	76	112	812	
13	T10	GPMC_AD9	0x824		*gpio0_23		0	23	AENA / RELAY2	23	55	113	813	
14	T11	GPMC_AD10	0x828		*gpio0_26		0	26	ZLIMIT	26	58	114	814	
15	U13	GPMC_AD15	0x83C	pr1_pr_u0_pr_u_r31_15	*gpio1_15		1	15	ESTOP	47	79	115	815	
16	V13	GPMC_AD14	0x838	pr1_pr_u0_pr_u_r31_14	*gpio1_14		1	14	ZENA / RELAY1 / BENA / RELAY1	46	78	116	816	
17	U12	GPMC_AD11	0x82C		*gpio0_27		0	27	ALIMIT	27	59	117	817	
18	V12	GPMC_CLK	0x88C	mcasp0_fsr	*gpio2_1		2	1	XLIMIT	65	97	118	818	
19	U10	GPMC_AD8	0x820		*gpio0_22		0	22	PWM2	22	54	119	819	
20	V9	GPMC_CSn2	0x884	pr1_pr_u1_pr_u_r31_13	*gpio1_31	emmc	1	31		63	95	120	820	
21	U9	GPMC_CSn1	0x880	pr1_pr_u1_pr_u_r31_12	*gpio1_30	emmc	1	30		62	94	121	821	
22	V8	GPMC_AD5	0x814		*gpio1_5	emmc	1	5		37	69	122	822	
23	U8	GPMC_AD4	0x810		*gpio1_4	emmc	1	4		36	68	123	823	
24	V7	GPMC_AD1	0x804		*gpio1_1	emmc	1	1		33	65	124	824	
25	U7	GPMC_AD0	0x800		*gpio1_0	emmc	1	0		32	64	125	825	
26	V6	GPMC_CSn0	0x87C		*gpio1_29		1	29		61	93	126	826	
27	U5	LCD_VSYNC	0x8E0	pr1_pr_u1_pr_u_r31_8	*gpio2_22	hdmi	2	22		LCD	86	118	127	827
28	V5	LCD_PCLK	0x8E8	pr1_pr_u1_pr_u_r31_10	*gpio2_24	hdmi	2	24		LCD	88	120	128	828
29	R5	LCD_HSYNC	0x8E4	pr1_pr_u1_pr_u_r31_9	*gpio2_23	hdmi	2	23		LCD	87	119	129	829
30	R6	LCD_AC_BIAS_EN	0x8EC	pr1_pr_u1_pr_u_r31_11	*gpio2_25	hdmi	2	25		LCD	89	121	130	830
31	V4	LCD_DATA14	0x8D8	uart5_ctsn	*gpio0_10	hdmi	0	10		LCD	10	42	131	831
32	T5	LCD_DATA15	0x8DC	uart5_rtsn	*gpio0_11	hdmi	0	11		LCD	11	43	132	832
33	V3	LCD_DATA13	0x8D4	uart4_rtsn	*gpio0_9	hdmi	0	9		LCD	9	41	133	833
34	U4	LCD_DATA11	0x8CC	uart3_rtsn	*gpio2_17	hdmi	2	17		LCD	81	113	134	834
35	V2	LCD_DATA12	0x8D0	uart4_ctsn	*gpio0_8	hdmi	0	8		LCD	8	40	135	835
36	U3	LCD_DATA10	0x8C8	uart3_ctsn	*gpio2_16	hdmi	2	16		LCD	80	112	136	836
37	U1	LCD_DATA8	0x8C0	uart2_ctsn	*gpio2_14	hdmi	2	14		LCD	78	110	137	837
38	U2	LCD_DATA9	0x8C4	uart2_rtsn	*gpio2_15	hdmi	2	15		LCD	79	111	138	838
39	T3	LCD_DATA6	0x8B8	pr1_pr_u1_pr_u_r31_6	*gpio2_12	hdmi	2	12		LCD	76	108	139	839
40	T4	LCD_DATA7	0x8BC	pr1_pr_u1_pr_u_r31_7	*gpio2_13	hdmi	2	13		LCD	77	109	140	840
41	T1	LCD_DATA4	0x8B0	pr1_pr_u1_pr_u_r31_4	*gpio2_10	hdmi	2	10		LCD	74	106	141	841
42	T2	LCD_DATA5	0x8B4	pr1_pr_u1_pr_u_r31_5	*gpio2_11	hdmi	2	11		LCD	75	107	142	842
43	R3	LCD_DATA2	0x8A8	pr1_pr_u1_pr_u_r31_2	*gpio2_8	hdmi	2	8		LCD	72	104	143	843
44	R4	LCD_DATA3	0x8AC	pr1_pr_u1_pr_u_r31_3	*gpio2_9	hdmi	2	9		LCD	73	105	144	844
45	R1	LCD_DATA0	0x8A0	pr1_pr_u1_pr_u_r31_0	*gpio2_6	hdmi	2	6		LCD	70	102	145	845
46	R2	LCD_DATA1	0x8A4	pr1_pr_u1_pr_u_r31_1	*gpio2_7	hdmi	2	7		LCD	71	103	146	846